

**REMARKS**

Reconsideration and withdrawal of the rejections of this application and consideration and entry of this paper are respectfully requested in view of the amendments and remarks herewith, which place the application into condition for allowance. The Examiner is thanked for the courtesies extended during the July 11, 2002 telephone interview.

**I. STATUS OF CLAIMS AND FORMAL MATTERS**

Claims 10-14 and 16-23 are pending. Claims 20 and 23 and the specification are amended, and claim 15 is cancelled, without prejudice.

No new matter is added.

It is submitted that these claims are patentably distinct from the documents cited by the Examiner, and that these claims are in full compliance with the requirements of 35 U.S.C. §112. The amendment to the claims and remarks made herein are not for the purpose of patentability within the meaning of 35 U.S.C. §§ 101, 102, 103 or 112; but rather the amendments and remarks are made simply for clarification and to round out the scope of protection to which Applicants are entitled. Support for the amended recitation in claims 20 and 23 is found throughout the specification and from the cancelled claim. More specifically, support for the amended recitation in claims 20 and 23 is found in the specification on page 10, line 31, and from cancelled claim 15.

The specification was amended to correct an inadvertent typographical error. The thickness of the non-oriented film should have read 30  $\mu\text{m}$ , not 80  $\mu\text{m}$ , on page 12, line 31. Support for the amended recitation in the specification is found in the table on page 13, which correctly recites 30  $\mu\text{m}$  as the thickness of the film. This error, however, was inadvertently carried over onto page 2 of Dr. Hatke's Declaration. If the Examiner believes a corrected

Declaration is warranted to remove this typographical error in order to better track the amended specification, the Examiner is invited to contact the undersigned.

As this paper is being submitted within the three-month term for reply set by the August 19, 2002 Office Action, no fee is believed to be due. In the event, however, a fee is required for the consideration of this paper, the Assistant Commissioner is authorized to charge such fee, or credit any overpayment, to Deposit Account 50-0320.

## II. 35 U.S.C. §103 REJECTIONS

Claims 10-15, 17-20 and 23 were rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over U.S. Patent No. 5,532,030 to Hirose et al. in view of U.S. Patent No. 3,786,221 to Silverman or U.S. Patent No. 3,900,120 to Sincock and U.S. Patent No. 5,702,665 to Valyi, U.S. Patent No. 4,325,797 to Hale et al. or U.S. Patent No. 4,285,657 to Ryder. Claim 16 was rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over U.S. Patent No. 5,532,030 to Hirose et al. in view of U.S. Patent No. 3,786,221 to Silverman or U.S. Patent No. 3,900,120 to Sincock and U.S. Patent No. 5,702,665 to Valyi, U.S. Patent No. 4,325,797 to Hale et al. or U.S. Patent No. 4,285,657 to Ryder and further in view of U.S. Patent No. 5,556,920 to Tanaka et al. And claims 21 and 22 were rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over U.S. Patent No. 5,532,030 to Hirose et al. in view of U.S. Patent No. 3,786,221 to Silverman or U.S. Patent No. 3,900,120 to Sincock and U.S. Patent No. 5,702,665 to Valyi, U.S. Patent No. 4,325,797 to Hale et al. or U.S. Patent No. 4,285,657 to Ryder and further in view of U.S. Patent No. 4,442,147 to Schirmer and U.S. 2002/0037393A1 to Strobel et al. The rejections will be collectively addressed and respectfully traversed.

The present invention is directed to, *inter alia*, a mono- or multilayer film comprising at least one layer of a cycloolefin copolymer, and where, at approximately 85% relative humidity

and at a temperature of approximately 23<sup>0</sup>C, the mono- or multilayer film has a water vapor permeation of  $\leq 0.035 \text{ g}^* \text{ mm/m}^2 \text{ d}$ , a puncture resistance of  $\leq 300 \text{ N/mm}$  and a thickness of  $\leq 100 \mu\text{m}$ , wherein said mono- or multilayer film has a stretching ratio of from 1.1 to 4.0. Hirose, either individually or in combination with any of the eight (8) secondary references (i.e., the Silverman, Sincock, Valyi, Hale, Ryder, Tanaka, Schirmer and Strobel patents), fails to disclose, suggest, or motivate a skilled artisan to practice the presently claimed invention wherein said mono- or multilayer film has a stretching ratio of from 1.1 to 4.0.

In order to ground an obviousness rejection, there must be some teaching which would have provided the necessary incentive or motivation for modifying the reference's teaching. *In re Laskowski*, 12 U.S.P.Q. 2d 1397, 1399 (Fed. Cir. 1989); *In re Obukowitz*, 27 U.S.P.Q. 2d 1063 (B.P.A.I. 1993). Further, "obvious to try" is not the standard under 35 U.S.C. §103. *In re Fine*, 5 U.S.P.Q. 2d 1596, 1599 (Fed. Cir. 1988). And as stated by the Court in *In re Fritch*, 23 U.S.P.Q. 2d 1780, 1783-1784 (Fed. Cir. 1992): "The mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggests the desirability of the modification." Also, the Examiner is respectfully reminded that for the Section 103 rejection to be proper, both the suggestion of the claimed invention and the expectation of success must be founded in the prior art, and not Applicants' disclosure. *In re Dow*, 5 U.S.P.Q.2d 1529, 1531 (Fed. Cir. 1988).

Applying the law to the instant facts, the requisite suggestion or motivation is lacking in the document relied upon in the Office Action. More specifically, Hirose does not disclose a mono- or multilayer film comprising a cycloolefin polymer and possessing a specific set of properties, such as water permeation, puncture resistance and thickness, as claimed and disclosed in the present invention. In particular, nowhere in Hirose is there a teaching or suggestion of a mono- or multilayer film having a stretching ratio of from 1.1 to 4.0.

None of the eight (8), disparate, secondary references remedy the deficiencies inherent in Hirose. More specifically, none of the secondary references teach, suggest or motivate a skilled artisan to combine its teachings with that of Hirose in order to practice a mono- or multilayer film having a stretching ratio of from 1.1 to 4.0. The Examiner is respectfully reminded that picking and choosing portions of disparate references in a hindsight attempt to formulate an obviousness rejection is impermissible. Thus, the only expectation of success is found in Applicants' specification as nowhere in the Hirose patent, alone or in combination with any of the eight (8) secondary references, is there any teaching that would lead a skilled artisan to practice a mono- or multilayer film having a stretching ratio of from 1.1 to 4.0. Again, the Federal Circuit in *In re Fine* was very clear that "obvious to try" is not the standard on which an obviousness rejection should be based. Thus, the rejections must fail as a matter of law.

Even assuming, *arguendo*, that a showing of *prima facie* obviousness could be made, which Applicants in no way concede, the instant invention exhibits unexpected results and superiority over the art and, thus, rebuts any holding of *prima facie* obviousness. Reference is made to the Declaration under 37 C.F.R. §1.132 of Dr. Wilfried Hatke, a co-inventor of the instant application, which was previously submitted on November 1, 2001 and is incorporated herein by reference.

Dr. Hatke notes that the instantly claimed mono- or multilayer film properties are surprisingly based on how the films are processed. Dr. Hatke explains that stretching of a non-oriented film increases the modulus of elasticity, tear strength, elongation at break and puncture resistance. Dr. Hatke goes on to explain that the increase of the modulus of elasticity, tear strength and elongation at break depends on the degree of stretching. Further, films biaxially stretched have a significantly improved puncture resistance. Dr. Hatke concludes that Hirose does not teach, suggest or disclose that the degree of stretching in combination with the

direction(s) of stretching have to be chosen to obtain a desired value of puncture resistance.

Thus, a skilled artisan would readily understand that the instantly claimed invention is not rendered obvious by Hirose, as Hirose neither discloses, suggests or teaches that the instantly claimed properties of the mono- or multilayer film is obtained by a selected processing of the film.

Applicants respectfully disagree with the Examiner's allegations that, *inter alia*, Dr. Hatke's declaration was inconclusive and not commensurate in scope with the claimed invention. Applicants assert that, with respect to Examples 1 and 4, the film thickness prior to stretching was indicated in the Table on page 2. As different stretching factors were used (none for Example 1 and 1.2 and 3.0 for Example 4) the thickness of the stretched films will have changed depending on the stretching conditions. The thickness of the film of Example 1 remains unchanged (no stretching), but the thickness of the film of Example 4 becomes smaller because of the stretching process. The stretching conditions and the thickness of the starting films were chosen for Examples 1-4 in a way that the thickness of the final product (for which the mechanical data are determined) is identical. The thickness in each case is 30  $\mu\text{m}$ , which is seen in the tables on pages 13 and 14 of the specification. Further, the films of Examples 3 and 4 are identical. But data collected for this film was from different stretching directions, and this is the reason why the same film was used in two examples. Applicants verily believe that the data from the instant Declaration, and from the Examples in the specification, show the surprising and unexpected results discussed on page 11. And Applicants hope the preceding assists the Examiner in favorably considering the Declaration.

Applicants disagree, however, with the Examiner's allegation that the claims are not directed to polymer blends. It is respectfully pointed out that the claims recite that the mono- or

multilayer film “comprises **at least one** cycloolefin polymer.” Thus, polymer blends fall within the scope of the instant claims.

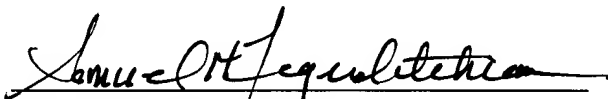
Consequently, reconsideration and withdrawal of the Section 103 rejections are respectfully requested.

### **CONCLUSION**

In view of the amendments and remarks herewith, and those on record, the present application is in condition for allowance. Early and favorable reconsideration and prompt issuance of a Notice of Allowance are earnestly solicited. If any issue remains as an impediment to allowance, an interview is respectfully requested and the Examiner is further respectfully requested to contact the undersigned by telephone to arrange a mutually convenient time and manner for the interview.

Respectfully submitted,  
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**VERSION WITH MARKINGS TO SHOW CHANGES MADE**

**IN THE SPECIFICATION:**

Please amend page 12, line 31, to page 13, line 6, to read as follows:

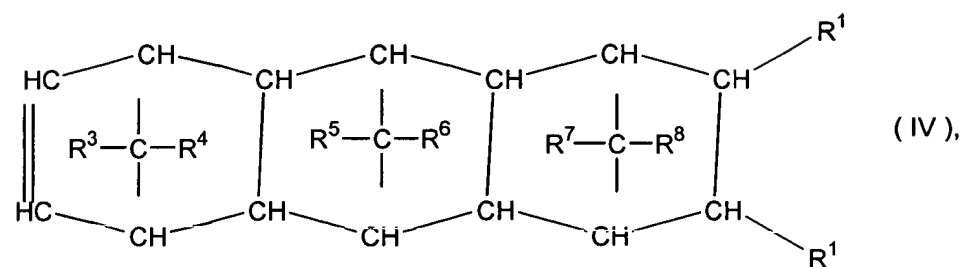
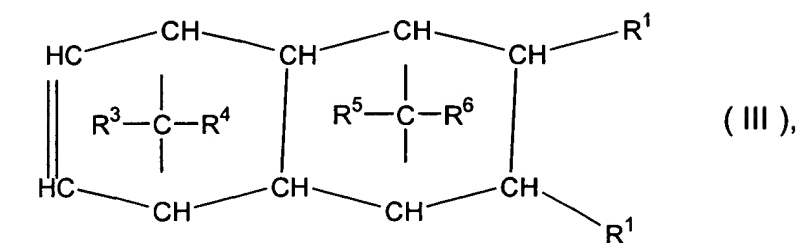
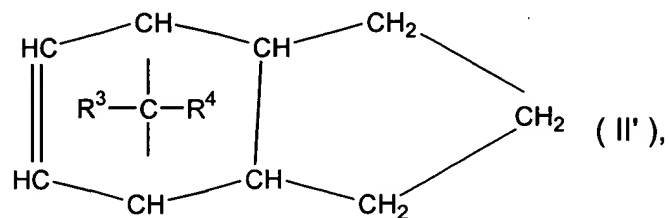
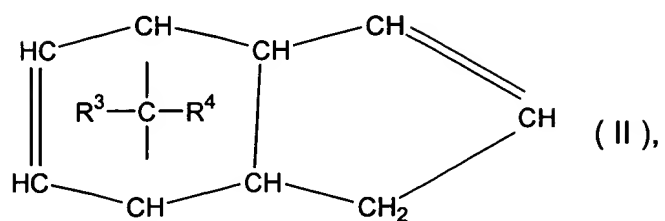
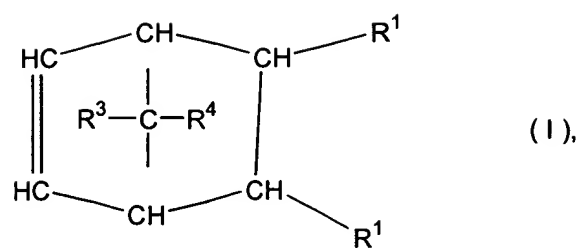
A non-oriented film of thickness [80] 30  $\mu\text{m}$  was produced from a copolymer of ethylene and 2-norbornene prepared using a metallocene catalyst and having an ethylene content ( $^{13}\text{C}$ -NMR) of 45 mol %, a glass transition temperature (DSC,  $20^\circ\text{C}/\text{min}$ , midpoint) of  $140^\circ\text{C}$ , a solution viscosity (0.5% strength by weight solution in decalin at  $135^\circ\text{C}$ ) of 58 ml/g and a molecular weight  $M_w$ : 42000 g/mol and  $M_n$ : 19500 g/mol (GPC, polyethylene standards, o-dichlorobenzene,  $T=135^\circ\text{C}$ ). The film was very brittle and fractured easily. The mechanical properties of this film were as follows: (mean values from three measurements):

**IN THE CLAIMS:**

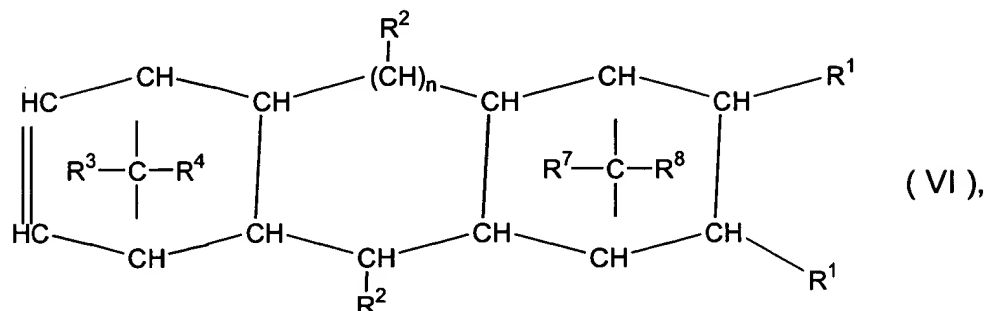
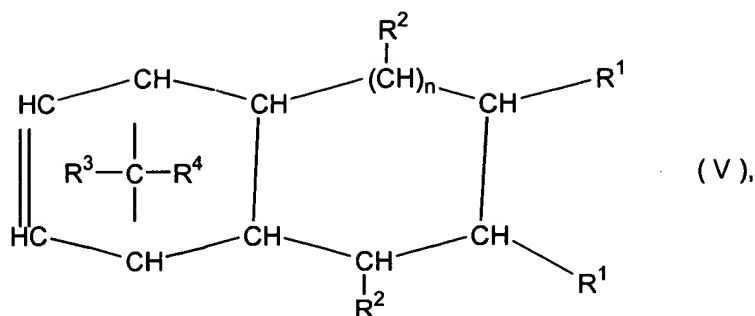
20. (Amended) A mono- or multilayer film comprising:

at least one layer of a cycloolefin polymer, where the mono- or multilayer film has, at a relative humidity of approximately 85% and a temperature of approximately  $23^\circ\text{C}$ , a water vapor permeation of  $\leq 0.035 \text{ g}\cdot\text{N}/\text{mm}/\text{m}^2\text{d}$ , a puncture resistance of  $\leq 300 \text{ N}/\text{mm}$  and a thickness of  $\leq 100 \mu\text{m}$ ,

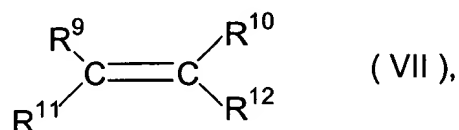
where the mono- or multilayer film is biaxially- or monoaxially-oriented and which film comprises at least one cycloolefin polymer selected from the group consisting of a class of polymers consisting of polymerized units of at least one cyclic olefin of the formulae I, II, II' III, IV, V or VI from 0.1 to 100% by weight, based on the total weight of the cycloolefin polymer, of







where  $R^1$ ,  $R^2$ ,  $R^3$ ,  $R^4$ ,  $R^5$ ,  $R^6$ ,  $R^7$ , and  $R^8$  are identical or different and are hydrogen or a  $C_1$ - $C_{20}$ -hydrocarbon radical, where the same radicals  $R^1$  to  $R^8$  may be different in the different formulae I to VI, where  $n$  is from 0 to 5, and from 0 to 99 mol %, based on the entire structure of the cycloolefin copolymer, of polymerized units derived from one or more acyclic olefins of the formula VII

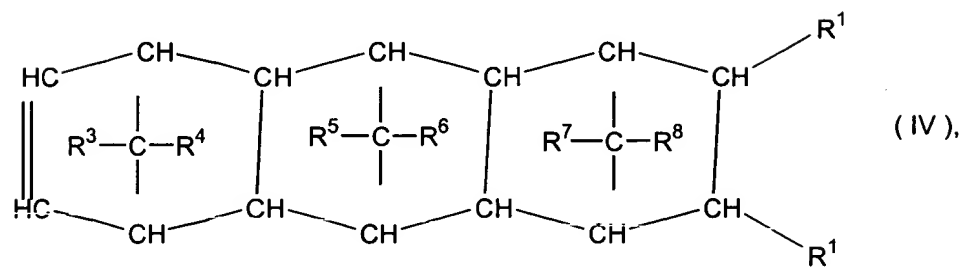
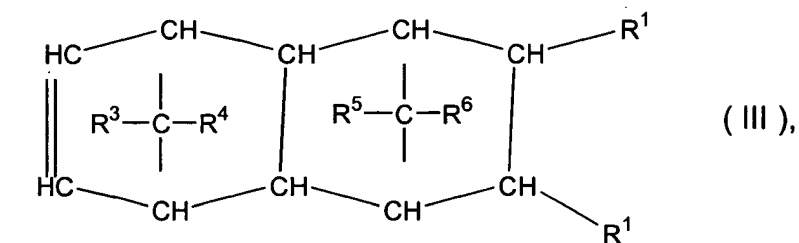
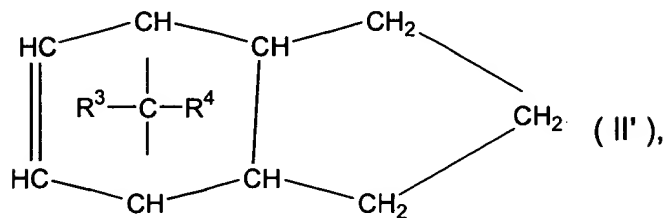
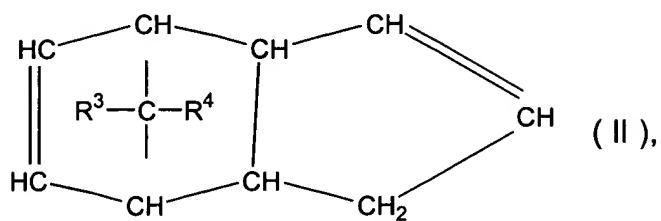
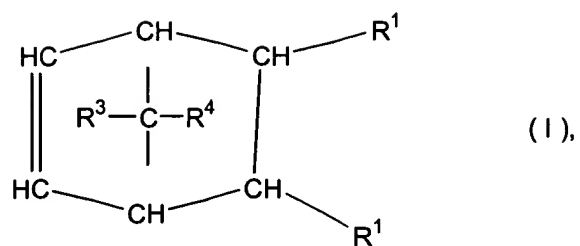


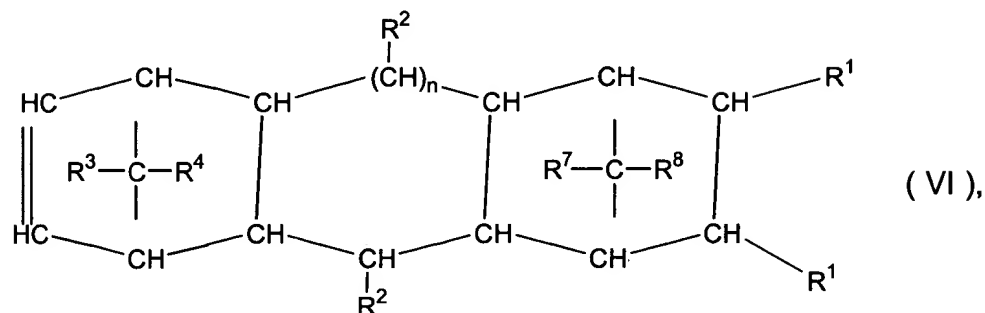
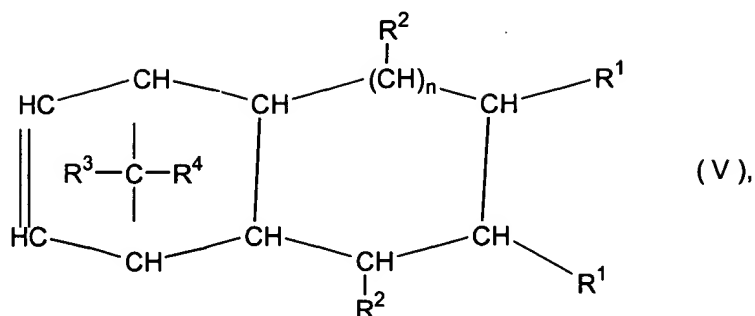
where  $R^9$ ,  $R^{10}$ ,  $R^{11}$ , and  $R^{12}$  are identical or different and are hydrogen, a linear or branched, saturated or unsaturated  $C_1$ - $C_{20}$ -hydrocarbon radical, and  
wherein said mono- or multilayer film has a stretching ratio of from 1.1 to 4.0.

23. (Amended) A monolayer film comprising:

at least one layer of a cycloolefin polymer, where the [mono- or multilayer] monolayer film has, at a relative humidity of approximately 85% and a temperature of approximately 23°C, a water vapor permeation of  $\leq 0.035 \text{ g} \cdot \text{N/mm/m}^2 \cdot \text{d}$ , a puncture resistance of  $\leq 300 \text{ N/mm}$  and a thickness of  $\leq 100 \text{ }\mu\text{m}$ ,

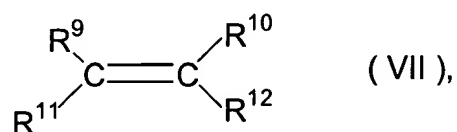
where the [mono- or multilayer] monolayer film is biaxially- or monoaxially oriented and which film comprises at least one cycloolefin polymer selected from the group consisting of a class of polymers consisting of polymerized units of at least one cyclic olefin of the formulae I, II, II' III, IV, V or VI from 0.1 to 100% by weight, based on the total weight of the cycloolefin polymer, of





where R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup>, R<sup>4</sup>, R<sup>5</sup>, R<sup>6</sup>, R<sup>7</sup>, and R<sup>8</sup> are identical or different and are hydrogen or a C<sub>1</sub>-C<sub>20</sub>-hydrocarbon radical, where the same radicals R<sup>1</sup> to R<sup>8</sup> may be different in the different formulae I to VI, where n is

from 0 to 5, and from 0 to 99 mol %, based on the entire structure of the cycloolefin copolymer,  
of polymerized units derived from one or more acyclic olefins of the formula VII



where R<sup>9</sup>, R<sup>10</sup>, R<sup>11</sup>, and R<sup>12</sup> are identical or different and are hydrogen, a linear or branched, saturated or unsaturated C<sub>1</sub>-C<sub>20</sub>-hydrocarbon radical, and  
wherein said monolayer film has a stretching ratio of from 1.1 to 4.0.